

I CLAIM:

1. A television antenna comprising:
a pair of generally sinuous antenna arms extending outwardly from a common central axis and arranged opposite each other,
5 each antenna arm in said pair comprising a plurality of sinuous cells, each of said plurality of cells having a rotational end terminating on an orientation line, said orientation lines of said pair of antenna arms spaced a predetermined distance apart in a parallel relationship to each other, each said antenna arm being formed
10 without interleaving the other said antenna arm.
2. The television antenna of claim 1 wherein said pair of sinuous antenna arms are formed in clockwise rotation.
3. The television antenna of claim 1 wherein said pair of generally sinuous antenna arms are formed in a plane, said plane perpendicular to said common central axis.
4. The television antenna of claim 3 wherein said plane is a sheet of dielectric material and said pair of generally sinuous antenna arms are printed from metal-based conductive ink on said sheet.
5. The television antenna of claim 3 wherein the output impedance of the television antenna is a function of the predetermined distance.
6. The television antenna of claim 3 wherein said pair of generally sinuous antenna arms are formed from metallic material in said plane.

7. The television antenna of claim 1 further comprising:
a reflector plane,
at least one support connected to said reflector plane
and to said pair of generally sinuous antenna arms, said at least one
5 support providing a separation distance between said reflector plane
and said pair of generally sinuous antenna arms, the front-to-back
ratio of said television antenna at least a function of said separation
distance.

8. The television antenna of claim 7 wherein said
separation distance is less than a separation distance providing
optimal front-to-back ratio so that said television antenna is low-
profile.

9. The television antenna of claim 7 where the reflector
plane is a grid of square reflector elements of conductive metal
material, the dimensions of each said reflector elements at least being
an odd percentage of a wavelength of an undesired signal so as to
5 reject said unwanted television signal.

10. The television antenna of claim 9 wherein the
conductive metal material is conductive ink.

11. The television antenna of claim 1 wherein each antenna
arm in said pair has the identical shape.

12. A television antenna comprising:
a pair of generally sinuous antenna arms extending
outwardly from a common central axis and arranged opposite each
other,
5 each antenna arm comprising a plurality of sinuous
cells, each of said plurality of cells having a tapered rotational end

terminating on an orientation line, said orientation lines of said two antenna arms spaced at a predetermined distance in a parallel relationship from each other, each said antenna arm being formed without interleaving the other said antenna arm, wherein the output impedance of the television antenna is at least a function of the predetermined distance,

10 a reflector,
at least one support connected to said reflector and to said pair of antenna arms, said at least one support providing a separation distance between said reflector and said pair of antenna arms, the front-to-back ratio of said television antenna at least a function of said separation distance.

13. The television antenna of claim 12 where the reflector is a grid of square reflector elements of conductive metal material, the dimensions of each said reflector elements at least being an odd percentage of a wavelength of undesired signal so as to reject said unwanted signal.

14. The television antenna of claim 12 wherein said television antenna optimally receives UHF signals in a first orientation and VHF signals in a second orientation.

15. A television antenna comprising:
two antenna arms located opposite each other on an axial axis and separated from each other by a first predetermined distance for receiving broadcast UHF television signals,
5 a pair of phasing stubs, one of said phasing stubs connected to a feed point on one of said antenna arms,
a reflector oriented a second predetermined distance on said axial axis from said two antenna arms,

10 said first and second predetermined distances selected
to provide a desired output impedance at the phasing stubs of about
300 ohms.

16. The television antenna of claim 15 wherein said two
antenna arms form a wedge shape.

17. The television antenna of claim 15 wherein said two
antenna arms are of identical and sinuous shape.

18. A UHF television antenna comprising:
a pair of generally sinuous identical antenna arms
receiving UHF television signals, said pair of antennas extending
outwardly in a plane from a common central axis and arranged
5 opposite each other,
each antenna arm in said pair of antenna arms
comprising a plurality of sinuous cells, each of said plurality of cells
having a tapered rotational end terminating on an orientation line, said
orientation lines of said pair of antenna arms spaced a first
10 predetermined distance in a parallel relationship to each other, each
said antenna arm being formed without interleaving and without
touching the other said antenna arm,
a pair of phasing stubs, one of said phasing stubs
connected to a feed point on one of said antenna elements,
15 a reflector oriented a second predetermined distance on
said axial axis behind said pair of antenna elements,
said first and second predetermined distances selected
to provide a desired output impedance at the phasing stubs of about
300 ohms in a bandwidth for UHF signals.

19. The UHF television antenna of claim 18 wherein said
pair of antenna arms are formed on a sheet of dielectric material in

said plane, said sheet oriented perpendicular to said common central axis.

20. The UHF television antenna of claim 18 where said reflective plane is a grid of square reflector elements of conductive metal material, the dimensions of each said reflector elements at least an odd percentage of a wavelength so as to reject unwanted signals.

21. The UHF antenna of claim 18 wherein said two antenna elements form a wedge shape.

22. The UHF antenna of claim 21 wherein the open end of said wedge shape faces said reflector and wherein said reflector form is a circular shape with the inside of said curve shape facing said open end.